



Technology will solve the problem, but not tomorrow

Posted by [Heading Out](#) on May 12, 2005 - 9:44am

Advanced technology has been touted as the secret weapon to solve the problems that the upcoming oil shortfall will bring. There hasn't, however, been a lot of detail as to what these new ideas might be, and it is a little bit disconcerting to see that at a recent industrial panel on new technology that it was a merchant banker that was listing the areas that needed development.

The meeting was the Offshore Technologies Conference and the banker was Matt Simmons.

"We need breakthrough R&D that leapfrogs current programs," he said. He went on to note that the industry should be thinking about such things as developing ways to change unconventional oil and gas to conventional "without the energy intensity required," figuring out an inexpensive way to drill more appraisal wells and core and plug them, and inventing new forms of energy."

Quotes from other panelists included

"The main drivers of innovation are financially starved entrepreneurs." And "VC providers say entrepreneurs also must have customers first before funding will be provided. Yet without sufficient start-up cash or operating capital they cannot attract customers," and "'Desperation is the mother of invention. The best developments have come out when competitors are breathing down necks."

(From [The Oil and Gas Journal](#)).

These are a background to my response to a discussion in comments on whether we are at the peak of technology. To disagree with J let me say that I suspect that the peak years of technology will be about ten years from now.

As oil prices rise to what the public will call a crisis, the government will institute a program. Following the Homeland Security model it will give most of the money to large corporations and national labs that (Halliburton excepted) don't have a lot of background knowledge but do have political connections. Because the energy business is actually relatively complex a couple of years will be then be wasted. But, by finding and talking to the right experts (if still around), they will get a program growing in about 3 years and after a couple or three more years useful product will appear. Some good ideas can come from the national labs (Sandia, for example, did a lot to develop polycrystalline diamond bits). However few of the national experts are now familiar with the real problems that exist in a muddy hole deep in the earth and education is very expensive.

It will take a few more blogs to talk about some of the things that can be done, but let me give an example " to give some possible hope to Matt and J. For many years there was little incentive

to develop a drill that would go faster than 200 ft/hour through rock. This is because that is about the fastest that the crew on a rig could assemble the pipe segments that are attached, one behind the other, as the drill goes deeper into the ground. More recently that speed limit was removed when this feed pipe was changed from segments to one continuous tube. This is brought to the site in a great coil and just unspooled down the hole as it is drilled. Coiled tubing has a lot of drawbacks (it doesn't turn so you have to put a motor at the bottom to turn the drilling bit and then you have to get power to that motor, for example). But at a meeting this week on a totally different topic, unrelated to the energy business, I saw something that might replace coiled tubing. The chances of this idea (being demonstrated in the hall) being even looked at by the industry is, in the short term, almost non-existent. But it is an example of how inventors from other fields can help and perhaps open the way to faster drilling.

Unfortunately there are other problems. The way in which research funding, from both industry and government, is allocated depends on the interests of those making the decisions. In general terms, if you have a mechanical solution to a problem, and the funder is only looking for a chemical answer, since that is his background, then regardless of effectiveness you will not get funded. But the problems of getting funding are really for another day. Innovation will ultimately give us an answer, it is just that to return to my one-month baby analogy, it can do nothing to help the problems that we are going to see in the next few years.

Technorati Tags: [peak oil](#), [oil](#)



This work is licensed under a [Creative Commons Attribution-Share Alike 3.0 United States License](#).